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Inventors: **Salceda et al.**
Serial No.: **10/517,696**
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REMARKS

Claims 1-16 were pending in the instant application. Claims 11-14 have been withdrawn from consideration by the Examiner and subsequently canceled by Applicants herein without prejudice. Claims 1-10, 15 and 16 have been rejected. Claims 1, 15 and 16 have been amended. Support for this amendment is provided in the specification at pages 15-17 of the instant specification. No new matter has been added by these amendments. Reconsideration is respectfully requested in light of these amendments and the following remarks.

I. Finality of Restriction Requirement

The Examiner has made final the Restriction Requirement mailed June 1, 2007. Accordingly, in an earnest effort to advance the prosecution of this case, Applicants have canceled without prejudice claims 11 through 14. Applicants reserve the right to file a divisional application to the canceled subject matter.

**II. Rejection of Claims 1-10, 15 and 16 under 35 U.S.C. 112,
second paragraph**

Claims 1-10, 15 and 16 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to

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particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner suggests that claims 1, 15 and 16 are vague and indefinite because they claim more than was elected. The Examiner also suggests that recitation of "selectively hybridizes" in claims 1 and 7 is vague and indefinite because selective hybridization depends upon the presence or absence of cross-hybridizing molecules in the reaction mixture and the no particular reaction mixture is recited in the claims.

Accordingly, in an earnest effort to advance the prosecution, Applicants have amended claims 1, 15 and 16 to be drawn to the elected subject matter. Further, Applicants have amended claims 1 and 7 to recited "hybridizes under stringent conditions". What is meant be hybridization under stringent conditions is clear and definite when read in light of teachings in the specification at pages 15-17 as required by MPEP 2173. Further, examples of nucleic acid molecules which hybridize under stringent conditions to SEQ ID NO:36 are set forth in the specification in Example 2b.

Withdrawal of these rejections is therefore respectfully requested.

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III. Rejection of Claims 1, 2, 4-10 and 16 under 35 U.S.C.

102 (b)

Claims 1, 2, 4-10 and 16 have been rejected under 35 U.S.C. 102(b) as being anticipated by Gendler et al. (J. Biol. Chem. 265:15286 (1990)). The Examiner suggests that Gendler et al. discloses a human breast cancer associated nucleic acid that shares 298 contiguous nucleic acids with SEQ ID NO:36 of the instant claims. The Examiner suggests that the nucleic acid of Gendler et al. would hybridize with SEQ ID NO: 36 because Kennell (Progr. Nucl. Acid Res. mol. Biol. 11:259 (1971) teaches that a heteroduplex of 25-50 base pairs is maximally stable and would form a specific hybrid in nucleic acid molecular hybridization.

Applicants respectfully traverse this rejection.

At the outset applicants set forth that SEQ ID NO: 36 of the instant application is 774 nucleotides in length, and that the sequence of Gendler et al. (JBC 265:15286 (1990)) is 1804 nucleotides in length.

Applicants respectfully disagree with the Examiner's interpretation that the teaching of Kennell et al. (Progr. Nucl. Acid Res. Mol. Biol. 11:259 (1971)) demonstrate that the sequence of Gendler et al. would hybridize to SEQ ID NO: 36 of the instant application. At line 10 of page 261, Kennell states:

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"The thermal stability of a nucleic acid duplex is extremely sensitive to the presence of mismatch nucleotide pairs within the polymer strand."

As indicated above, SEQ ID NO: 36 is 774 nucleotides in length, while the sequence of Gendler is 1084 nucleotides. Thus, the polymer strand between the two sequences is 774 nucleotides.

Figure 1 presented by the Examiner shows only 298 nucleotides to be complementary out of 774 nucleotides. Since figure 1 presented by the Examiner only shows nucleotide matches of 38.5% of the polymer strand, according to Kennell this duplex would not be a stable hybrid.

Based on the evidence presented by the Examiner and the teaching of Kennell et al., the nucleotide sequence of Gendler et al. would NOT hybridize to SEQ ID NO:36 of the instant application. Thus, this reference does not teach the claimed invention.

Withdrawal of this rejection is therefore respectfully requested.

IV. Rejection of Claims 3 and 15 under 35 U.S.C. 103(a)

Claim 3 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Gendler et al. (J. Biol. Chem. 265:15286 (1990)) in view of the state of art that isolation of genomic DNA

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once cDNA has been isolated is known.

Claim 15 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Gendler et al. (J. Biol. Chem. 265:15286 (1990) in view of An et al. (U.S. Patent No. 6,218,529). The Examiner suggests that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the human breast cancer associated nucleic acid of Gendler et al. as a cancer marker in the manner taught by An et al. in order to detect and/or diagnose breast cancer.

Applicants respectfully traverse this rejection.

As discussed in Section III, supra, based on the evidence presented by the Examiner and the teaching of Kennell et al., the nucleotide sequence of Gendler et al. would NOT hybridize to SEQ ID NO:36 of the instant application.

Accordingly, the primary reference does not teach all the claim limitations.

Further, the secondary references, namely the state of the art for genomic DNA and An et al. fail to remedy the deficiencies in the primary reference as neither teach or suggest the isolated nucleic acid molecule as claimed.

Accordingly, the cited combination of references which do not teach or suggest all the claim limitations cannot render

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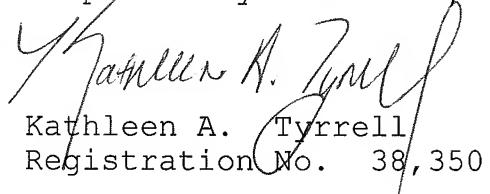
obvious the instant claimed invention. See MPEP 2143.

Withdrawal of these rejections under 35 U.S.C. 103(a) is therefore respectfully requested.

V. Conclusion

Applicants believe that the foregoing comprises a full and complete response to the Office Action of record. Accordingly, favorable reconsideration and subsequent allowance of the pending claims is earnestly solicited.

Respectfully submitted,



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